HEALTH HUMAN RESOURCES PLANNING AND THE DYNAMIC NATURE OF THE HEALTH CARE NEEDS OF POPULATIONS

Elvira NICA
Lect. univ. dr.
Academy of Economic Studies Bucharest
popescu_elvira@yahoo.com

Rezumat
Potrivit Birch et al., abordările tradiţionale referitoare la planificarea sănătăţii resurselor umane subliniază rolul schimbărilor demografice asupra nevoilor de resurse umane sanatoase. Marques susţine că noul HR în cadrul organizaţiei interconectate la nivel global ar trebui să aibă un accent asupra dezvoltării inter-funcţionale a factorului uman. Girma et al. precizează că dezvoltarea personalului capabil, motivat şi sprijinit în domeniul sănătăţii este esenţială pentru depăşirea presiunilor pentru a atinge obiectivele naţionale şi globale de sănătate. Schultz analizează politicile şi instituţiile care au stimulat sau inhibat o creştere economică, legate de producţia eficientă şi echitabilă şi de utilizarea resurselor umane (nu prea există consens cu privire la forţele de cauzalitate care au îmbunătăţit condiţiile Sănătăţii Mondiale şi mortalitatea redusă).
Cuvinte cheie: planificarea sănătăţii resurselor umane, productivitatea sănătăţii, migraţie, scopurile dezvoltarii, natura dinamică.

Abstract
According to Birch et al., traditional approaches to health human resources planning emphasize the role of demographic change on the needs for health human resources. Marques argues that the new HR within the globally intertwined organization should have a focus on cross-functional HRD. Girma et al. state that developing capable, motivated and supported health workers is essential for overcoming bottle necks to achieve national and global health goals. Schultz examines the policies and institutions that may have fostered or inhibited that growth, related to the efficient and equitable production and utilization of human resources (there is little consensus on the causal forces which improved world health conditions and reduced mortality).
Key words: health human resources planning, production of health, migration, development goals, dynamic nature

JEL Classification: I12, J24; J81; O15; O33.

INTRODUCTION

According to Birch et al., traditional approaches to health human resources planning emphasize the role of demographic change on the needs for health human resources. Practical applications of health human resources planning continue to base plans on the size and demographic mix of the population applied to simple population-provider or population-utilization ratios. Birch et al. develop an analytical framework based on the production of health care services and the multiple determinants of health human resource requirements, and state that the requirements for human resources in the future depend on four elements: the size and demographic mix of the population (demography), the levels of

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risks to health and morbidity in the population (epidemiology), the services deemed appropriate to address the levels of risks to health and morbidity (standards of care), and the rate of service delivery by providers (productivity). The focus of HHRP to date has been on the impact of demographic change on individual health care professions. "Systems that ration access to health care according to ability and willingness to pay will have different requirements for providers than systems that ration access according to relative needs for care, even where the levels and distribution of health are the same. Funding arrangements that influence the production of health care (the level and mix of different resources) will affect the requirements for a particular type of provider. Only where the social and political choices about the access to and delivery of care are explicit, can scientific methods be used systematically to derive the requirements for health care providers in a particular population" (Birch et al., 2007). Birch et al. point out that the relationships between age and needs, and between the numbers of providers and the quantity of services, are exogenous, independent of other factors and hence constant over time. Models for HHRP need to embrace the dynamic nature of the health care needs of populations. Nurses use their skills in combination with other human and non human resources to provide services to meet the needs of the population. Innovation involves the identification of new ways of production aimed at increasing the productivity of resources. The introduction of day case surgery increased the number of cataract replacements that an ophthalmology team can provide per time period. The human resources required to meet the needs of a population will be dependent on the role human resources play in serving needs. Current plans for physician training would be associated with more than enough physicians to maintain levels of services per capita after allowing for aging of the population. Birch et al. develop existing HHR frameworks in order to relax the strict assumptions about epidemiology and production embodied in current practice of HHRP in order to accommodate changes in the levels and distribution of health care needs in the population and changes in levels of productivity of health care providers. Birch et al. provide a link between principles identified in theoretical models and the application of these principles in health human resources policy development. The simulation results emerge from the interactions of different components of HHRP and provide an evidence-base for the relative impact of different policies over time. The simulation model specifies the mathematical relationships for the components of the analytical framework. "Because the rates of entry and exit generally differ depending on age, the size and characteristics of the future stock is a function of the *initial age distribution* of the stock. In the short-term, the age-distribution of a stock can exert a very powerful influence on growth or reduction in stock over time. For example, rates of exit are generally larger at older ages than younger ages, primarily due to retirements. Hence total losses will depend primarily on the proportion of the stock in those age groups with the highest incidence of retirement. Recent concerns have been expressed with regards to the large concentration of the stock of nurses in the older age groups (i.e., over age 55) because of the implications that has for exit rates in

the immediate future" (Birch et al., 2007). Birch et al. maintain that the effects of individual variables may not be confined to graduate entry to the stock of providers. The work and productivity module considers the average rate of service delivery per hour of work within provider groups. The entry and exit rates of a provider stock imply a fixed age distribution if maintained. Increases in training seats are not particularly helpful or effective at dealing with short term or time limited changes in human resource requirements because of the delay in outcomes. The impact of the retirement scenarios is smaller if applied to a young initial age distribution. Polices designed to delay retirement until age 65 have the potential to delay increases in provider gaps associated with a mature age distribution. Changing the number of training seats is often the first policy response to human resource gaps. Birch et al. emphasize that the effectiveness of an increased seat policy is compromised if program attrition, out migration and other exits are at high levels. Many of the developments occurring in the ways health care services are organized and delivered are aimed at improving productivity and hence reducing the unit cost of service production. Productivity improvements have the potential to offset large reductions in supply resulting from retirements. Changing the worked hour distribution is a powerful short-term policy option for addressing short term human resource gaps. Observed changes in the health status distribution from which the trend was developed did not follow a clear pattern. The failure to accommodate any improvements in health status within the population could lead to substantial overestimates of the requirements for providers. if the average health status of 65-75 year old males increases over time, the number of providers required to serve this subgroup of the population would fall, other things equal. "Although we might expect populations with lower levels of health status to be provided with greater quantities of services, the size of the 'health status-service provision' relationship is largely the result of provider discretion guided by professional guidelines and ethics and subject to the constraints imposed by prevailing budgets. Because *level of service* is a determinant of provider requirements, changes in the level of service will affect requirements for providers. Suppose research suggests more frequent screening of diabetic patients would improve patient outcomes and decision makers seek to change service delivery to this patient group accordingly. Such a change increases the *level of service* and, with all other things equal, this increases the required number of providers" (Birch et al., 2007).

Marques argues that the new HR within the globally intertwined organization should have a focus on cross-functional HRD. Open communications between various departments and HR will reduce negative effects of internal politics and increase positive interconnectedness throughout the organization. A cross-functional unit will deepen the effectiveness of the organization's most valuable resources, increase the organization's success in implementing responsible HRD, and enhance the company's chances to excel in its industry. HR as a cross-functional unit in an organization does not

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necessarily require a tremendous physical reorganization. "As anyone who has been part of an organizational change effort, the business organizations that will implement this operational model first will likely run into detractors and roadblocks. Yet those who implement such an adventurous undertaking will obtain a competitive as well as a comparative advantage. By ensuring the most important assets of any organization, that of an optimal level of recognition, trust, need response, and attunement between skills, desires, and organizational requirements, these organizations will have discovered the key to lasting and increasing excellence". (Marques, 2006). Girma et al. state that developing capable, motivated and supported health workers is essential for overcoming bottle necks to achieve national and global health goals. Health problems in Ethiopia are dominated by communicable and nutrition-related diseases. The health policy of Ethiopia emphasizes training of community based task-oriented frontline and mid-level health workers. HRH information system is highly under developed with scanty information for policy and strategy development. Girma et al. observe that there is insufficient human capacity in Ethiopia to absorb, apply and make efficient use of the interventions being contemplated through the various initiatives related to child survival, safe motherhood, HIV/AIDS, malaria. The distribution of health professionals is uneven between regions. The atmosphere which nurtures the very existence and increase of private health facilities in the country is expanding rapidly. The momentum of opening generic and specialized private health facilities in the country will continue in the foreseeable future. There is poor HRH management system in Ethiopia. Establishing sound HRH information system is vital for the policy formulation process. The current staffing pattern is rigid with no guidelines for adapting to local reality. (Girma et al., 2007)

Schultz examines the policies and institutions that may have fostered or inhibited that growth, related to the efficient and equitable production and utilization of human resources. The returns to human capital have become larger in Chinese agriculture after 1979, as the rural organizational reforms spread throughout the country. Interregional differences in wages are large in China, signaling returns to migration are substantial. There are tentative signs that the new Chinese government may relax its limits on rural-urban migration. Schultz asserts that there is little consensus on the causal forces which improved world health conditions and reduced mortality. There are correlations across countries in some regions, and in some time periods, between changes in age structure of the population and more rapid growth in per capita income. There appears to be no scientific basis for encouraging lower fertility or slower population growth in order to promote economic development. "There is an argument for providing family planning information and services to private citizens to help them have the number of births they want and time those births optimally over an individual's life cycle. Given the rate of improvement in child survival in many low-income countries, new generations of parents confront very different lifetime opportunities. The most promising options for their lives, and those of their children,

may change with the extension of information about new technologies. To assess the reliability and risks associated with different modern birth control technologies, a public health extension service can usefully diffuse information. In the case of agriculture, where family farms are small, the government has an economic justification for subsidizing the production of new (agricultural) technology and the diffusion of best practices at low marginal cost through farm extension services". (Schultz, 2003). Schultz holds that a woman's education tends to be related to her knowledge of birth control, and the time it takes her to identify and adopt a beneficial technological innovation, such as a new form of birth control. Parents behave as if the number of children (quantity) they have is a substitute in their consumption for the schooling and health (quality) investments they make in each of their children. The impact of a birth quota would be the opposite to that due to twins, and could force Chinese parents to increase their income-compensated demand for education of their remaining children. The high cost of adding to a family's housing in Chinese cities may deter most urban couples from wanting a second child. The government prohibition of private land ownership strengthens the relative demands of rural parents for more children. Schultz remarks that the unattractive distributional consequences of the birth quota in China is made worse by the recent decentralization of government finances following in the wake of the economic reforms. Self-employed farmers represent most of the rural labor force today, making it is difficult to measure the productivity of self employed family labor. Household surveys or censuses that include information on wages and worker characteristics are not widely available for China before the 1980s. Farm management and production surveys have been used to estimate agricultural production functions, from which the marginal product of labor can be inferred. The household registration system has curbed mobility and reduced the incentives for the rural population to invest in more schooling. Schultz observes that women employed in urban areas in state enterprises receive lower wages than they do in the private sector, controlling for schooling, experience and province. Those who are especially inclined to work in the wage labor force because they lack these non-earned incomes are more likely to receive for unobserved reasons lower wages when they do work for wages. The urban wage returns to schooling increased more among cohorts born more recently. An urban bias in labor market policy has restrained rural to urban migration and other forms of intersectoral adjustment. "Government controls to curb rural-urban migration have been relaxed with the agricultural reforms starting in 1979, allowing first for intra-rural migration to township-village-industries which fueled growth in rural nonagricultural employment. Urban consumer food subsidies (i.e., food rations) for legal residents have become less effective in halting migration to the cities as a larger share of food moves through free markets. There are still a series of arrangements registering households (Houkou) that restrain the efficient adjustment of intersectoral labor markets, and these are probably the most costly distortion in the Chinese economy today." (Schultz, 2003). Schultz argues that the legal barriers to

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permanent migration contributes to an under-investment in on-the-job training among illegal and temporary migrants to Chinese cities. Even with the egalitarian health and food-sharing institutions of China, there are still large differences in child height and weight standardized for the child's age. The socially predictable variation in height can be interpreted as a form of health human capital. The contract with the government for "use of the land" may be abrogated if the family neglects the land. To keep control of the land, the farm household can only allow selected family members to migrate in search of better employment. Migration may be a human capital investment that is easier for relatively rich families to finance, through borrowing against their other collateral resources. Private family transfers between poorer and richer states, which are expected to be largely transfers related to migration, are *not* necessarily equalizing within the poor origin state. Schultz says that the total effect of migration on inequality cannot be ascertained from a static decomposition of the transfer income's contribution to inequality. The much poorer rural elderly must often rely on private family support from their children. In the rural areas collectivized medical institutions have generally been closed after the agricultural reforms. The elderly in rural areas of China are much poorer and in poorer health, than their urban counterparts. Post-secondary schooling is becoming more productive in the 1990's with the diffusion of economic reforms that increase the opportunity for workers to innovate and adopt new technologies and search out their best employment prospects. "If centralized government resources are needed for human resource development in China today, they are specifically needed to mitigate the growing inequality of human capital in the poor rural population. Going forward priority should be given to equalizing investment opportunities for children across future birth cohorts in China, which will require subsidizing the poor rural areas to invest in improving schools and child health and nutrition programs. This is an area where the Chinese government made great progress in the first two decades of the Peoples' Republic. It will be a challenge for the Central government to adequately support these targeted human capital investment programs, which should shelter the young from the consequences of the growing rural-urban economic disparities." (Schultz, 2003).

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